A B S T R A C T

PROCESS FOR THE PRODUCTION OF PRIMARY ALCOHOLS

A process for producing primary alcohols from secondary alcohols and/or tertiary alcohols and/or ketones, wherein the process comprises reacting a compound selected from a secondary alcohol, a tertiary alcohol, a ketone, or mixtures thereof, with carbon monoxide and hydrogen in the presence of a catalyst based on:

(i) a source of Group VIII metal,

(ii)a bidentate ligand having the general formula (I):

$$R^1R^2M^1\text{-}R\text{-}M^2R^3R^4 \quad (I)$$

wherein M^1 and M^2 are independently P, As or Sb; R^1 and R^2 together represent a bivalent substituted or unsubstituted cyclic aliphatic group whereby the two free valencies are linked to M^1; R^3 and R^4 independently represent a substituted or unsubstituted hydrocarbyl group, or together represent a bivalent or non-substituted cyclic group whereby the two free valencies are linked to M^2; and

R represents a bivalent aliphatic bridging group; and

(iii) an acid having a pK_a of 3 or less which is in excess over the Group VIII metal.